

```

1000 *-----
1010 *      PROGRAM TO INPUT AN INTEGER FROM
1020 *      0-65535, AND PUT IT IN $50,51
1030 *
1040 *      BY PETER MEYER, 10/24/81
1050 *      MAY BE FREELY USED WITH ACKNOWLEDGEMENT
1060 *-----
1070 *      CALL:   JSR GET.INTEGER.INTO.LINNUM
1080 *      RETURN:  INTEGER VALUE IN LINNUM ($50,51)
1090 *              AND CARRY CLEAR,
1100 *              OR CARRY SET IF VALUE NEGATIVE
1110 *              OR TOO LARGE, OR HAS A
1120 *              LETTER IN IT.
1130 *-----
0050- 1140 LINNUM .EQ $50,51
009D- 1150 FACEXP .EQ $9D
00A0- 1160 FACMO  .EQ $A0
00A1- 1170 FACLO  .EQ $A1
00A2- 1180 FACSGN .EQ $A2
00B8- 1190 TXTPTR .EQ $B8,B9
0200- 1200 BUFFER .EQ $200
1210 *-----
00B7- 1220 CHRGOT .EQ $B7
D539- 1230 GDBUFS .EQ $D539
EBF2- 1240 QINT  .EQ $EBF2
EC4A- 1250 FIN   .EQ $EC4A
FD75- 1260 NXTCHR .EQ $FD75
1270 *-----
1280          .OR $300      (BUT MAY BE LOADED ANYWHERE)
1290 *-----
1300 GET.INTEGER.INTO.LINNUM
0300- A2 00 1310          LDX #0
0302- 20 75 FD 1320          JSR NXTCHR
0305- 8A      1330          TXA          CHECK FOR NULL ENTRY
0306- F0 27 1340          BEQ .2          NULL
1350 *-----
1360 *      CHECK FOR ALPHA INPUT
1370 *      AND ALSO WEED OUT ENTRIES SUCH AS
1380 *      "1E99" AND "99999...." WHICH WOULD
1390 *      CAUSE OVERFLOW.
1400 *-----
0308- 48      1410          PHA          SAVE LENGTH
0309- 20 39 D5 1420          JSR GDBUFS
030C- 68      1430          PLA          RETRIEVE LENGTH
030D- C9 24      1440          CMP #36
030F- B0 1E      1450          BCS .2
0311- AA      1460          TAX
0312- CA      1470          DEX
0313- BD 00 02 1480 .1      LDA BUFFER,X
0316- C9 41      1490          CMP #'A
0318- B0 15      1500          BCS .2
031A- CA      1510          DEX
031B- 10 F6      1520          BPL .1
1530 *      GET NUMBER INTO FAC
031D- A9 00      1540          LDA #BUFFER
031F- A0 02      1550          LDY /BUFFER
0321- 85 B8      1560          STA TXTPTR
0323- 84 B9      1570          STY TXTPTR+1
0325- 20 B7 00 1580          JSR CHRGOT
0328- 20 4A EC 1590          JSR FIN

```

# QUICKTRACE

relocatable program traces and displays the actual machine operations, while it is running without interfering with those operations. Look at these FEATURES:

**Single-Step** mode displays the last instruction, next instruction, registers, flags, stack contents, and six user-definable memory locations.

**Trace** mode gives a running display of the Single-Step information and can be made to stop upon encountering any of nine user-definable conditions.

**Background** mode permits tracing with no display until it is desired. Debugged routines run at near normal speed until one of the stopping conditions is met, which causes the program to return to Single-Step.

**QUICKTRACE** allows changes to the stack, registers, stopping conditions, addresses to be displayed, and output destinations for all this information. All this can be done in Single-Step mode while running.

**Two optional display formats** can show a sequence of operations at once. Usually, the information is given in four lines at the bottom of the screen.

**QUICKTRACE** is completely transparent to the program being traced. It will not interfere with the stack, program, or I/O.

**QUICKTRACE** is relocatable to any free part of memory. Its output can be sent to any slot or to the screen.

**QUICKTRACE** is completely compatible with programs using AppleSoft and Integer BASICs, graphics, and DOS. (Time dependent DOS operations can be bypassed.) It will display the graphics on the screen while **QUICKTRACE** is alive.

**QUICKTRACE** is a beautiful way to show the incredibly complex sequence of operations that a computer goes through in executing a program

**QUICKTRACE** \$50

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1600 *-----
1610 *   CHECK IF NUMBER IS NEGATIVE
1620 *-----
032B- A5 A2 1630   LDA FACSGN
032D- 10 02 1640   BPL .3
032F- 38 1650 .2   SEC           NUMBER IS TOO LARGE, NEGATIVE
0330- 60 1660   RTS           OR HAS A LETTER IN IT.
1670 *-----
1680 *   CHECK IF NUMBER IS TOO LARGE
1690 *-----
0331- A5 9D 1700 .3   LDA FACEXP
0333- C9 91 1710   CMP #$91
0335- B0 0C 1720   BCS .4           TOO LARGE
1730 *-----
1740 *   PLACE IN LINNUM
1750 *-----
0337- 20 F2 EB 1760   JSR QINT           CONVERT TO INTEGER
033A- A5 A1 1770   LDA FACLO
033C- A4 A0 1780   LDY FACMO
033E- 85 50 1790   STA LINNUM
0340- 84 51 1800   STY LINNUM+1
0342- 18 1810   CLC           SIGNAL GOOD VALUE
0343- 60 1820 .4   RTS

```